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By: **Delegates Rosenberg, Hubbard, Nathan-Pulliam, Oaks, and Pendergrass**

Introduced and read first time: February 12, 2004

Assigned to: Health and Government Operations

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A BILL ENTITLED

1 AN ACT concerning

2 **Human Cloning Ban and Stem Cell Research Protection Act of 2004**

3 FOR the purpose of prohibiting a person from conducting or attempting to conduct  
4 human cloning; prohibiting a person from shipping products of nuclear  
5 transplantation under certain circumstances; prohibiting a person from  
6 exporting unfertilized blastocysts to certain countries; establishing certain  
7 criminal and civil penalties; prohibiting somatic cell nuclei from being  
8 transplanted in certain oocytes; prohibiting unfertilized blastocysts from being  
9 maintained for more than a certain period of time; prohibiting oocytes from  
10 being used in nuclear transplantation research under certain circumstances;  
11 prohibiting oocytes or unfertilized blastocysts from being acquired, received, or  
12 transferred for valuable consideration other than certain reimbursement costs;  
13 prohibiting nuclear transplantation from being conducted in certain  
14 laboratories; providing for the construction of certain provisions of this Act;  
15 defining certain terms; and generally relating to human cloning and stem cell  
16 research.

17 BY adding to  
18 Article - Health - General  
19 Section 20-1001 through 20-1004 to be under the new subtitle "Subtitle 10.  
20 Human Cloning Ban and Stem Cell Research Protection"  
21 Annotated Code of Maryland  
22 (2000 Replacement Volume and 2003 Supplement)

23 **Preamble**

24 WHEREAS, An estimated 128,000,000 Americans suffer from the crippling  
25 economic and psychological burden of chronic, degenerative, and acute diseases,  
26 including diabetes, Parkinson's disease, cancer, and Alzheimer's disease; and

27 WHEREAS, The costs of treatment and lost productivity of chronic,  
28 degenerative, and acute diseases in the United States constitute hundreds of billions  
29 of dollars every year, and estimates of the economic costs of these diseases do not

1 account for the extreme human loss and suffering associated with these conditions;  
2 and

3 WHEREAS, Stem cell research offers immense promise for developing new  
4 medical therapies for these debilitating diseases and could lead to unprecedented  
5 treatments and potential cures for diabetes, Parkinson's disease, Alzheimer's disease,  
6 cancer, and other diseases; and

7 WHEREAS, The United States and the State of Maryland have historically  
8 fostered open scientific inquiry and technological innovation, and this environment,  
9 coupled with the commitment of public and private resources, has made the United  
10 States the preeminent world leader in biomedicine and biotechnology; and

11 WHEREAS, Maryland ranks third in the number of biotechnology companies in  
12 the nation; and

13 WHEREAS, The biotechnology industry is a key component of the State's  
14 economy that provides employment in over 300 companies, a significant number of  
15 which are engaged in stem cell research; and

16 WHEREAS, The University of Maryland, Baltimore and The Johns Hopkins  
17 University are also involved in stem cell research, with projects representing a  
18 combined total of millions of dollars in public and private funding; and the State's  
19 favorable research climate would be significantly diminished by limitations imposed  
20 on stem cell research; and

21 WHEREAS, Stem cell research, including the use of embryonic stem cells for  
22 medical research, raises significant ethical and policy concerns that must be carefully  
23 considered; and

24 WHEREAS, Public policy on stem cell research must balance ethical and  
25 medical considerations. The policy must be based on an understanding of the science  
26 associated with stem cell research and grounded on a thorough consideration of the  
27 ethical concerns regarding this research; and must be carefully crafted to ensure that  
28 researchers have the tools necessary to fulfill the promise of stem cell research; now,  
29 therefore,

30 SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF  
31 MARYLAND, That the Laws of Maryland read as follows:

32 **Article - Health - General**

33 **SUBTITLE 10. HUMAN CLONING BAN AND STEM CELL RESEARCH PROTECTION.**

34 20-1001.

35 (A) IN THIS SUBTITLE THE FOLLOWING WORDS HAVE THE MEANINGS  
36 INDICATED.

1 (B) "HUMAN CLONING" MEANS THE IMPLANTATION OR ATTEMPTED  
2 IMPLANTATION OF THE PRODUCT OF NUCLEAR TRANSPLANTATION INTO A UTERUS  
3 OR THE FUNCTIONAL EQUIVALENT OF A UTERUS.

4 (C) "HUMAN SOMATIC CELL" MEANS A HUMAN CELL OTHER THAN AN  
5 UNFERTILIZED EGG OR SPERM CELL.

6 (D) "NUCLEAR TRANSPLANTATION" MEANS THE TRANSFER OF THE NUCLEUS  
7 OF A HUMAN SOMATIC CELL INTO AN OOCYTE FROM WHICH THE NUCLEUS OR ALL  
8 CHROMOSOMES HAVE BEEN OR WILL BE REMOVED OR RENDERED INERT.

9 (E) "NUCLEUS" MEANS THE CELL STRUCTURE THAT HOUSES CHROMOSOMES.

10 (F) "OOCYTE" MEANS THE FEMALE GERM CELL OR EGG.

11 (G) (1) "UNFERTILIZED BLASTOCYST" MEANS AN INTACT CELLULAR  
12 STRUCTURE THAT IS THE PRODUCT OF NUCLEAR TRANSPLANTATION.

13 (2) "UNFERTILIZED BLASTOCYST" DOES NOT INCLUDE STEM CELLS,  
14 OTHER CELLS, CELLULAR STRUCTURES, OR BIOLOGICAL PRODUCTS DERIVED FROM  
15 AN INTACT CELLULAR STRUCTURE THAT IS THE PRODUCT OF NUCLEAR  
16 TRANSPLANTATION.

17 20-1002.

18 THE PURPOSE OF THIS SUBTITLE IS TO:

19 (1) PROHIBIT HUMAN CLONING; AND

20 (2) PROTECT IMPORTANT AREAS OF MEDICAL RESEARCH, INCLUDING  
21 STEM CELL RESEARCH.

22 20-1003.

23 (A) A PERSON MAY NOT:

24 (1) CONDUCT OR ATTEMPT TO CONDUCT HUMAN CLONING;

25 (2) SHIP A PRODUCT OF NUCLEAR TRANSPLANTATION TO OR FROM THE  
26 STATE FOR THE PURPOSE OF HUMAN CLONING; OR

27 (3) EXPORT AN UNFERTILIZED BLASTOCYST TO A FOREIGN COUNTRY  
28 THAT DOES NOT PROHIBIT HUMAN CLONING.

29 (B) (1) A PERSON WHO VIOLATES THIS SECTION IS GUILTY OF A FELONY  
30 AND ON CONVICTION IS SUBJECT TO IMPRISONMENT NOT EXCEEDING 10 YEARS OR A  
31 FINE NOT EXCEEDING \$200,000 OR BOTH.

32 (2) THE SECRETARY MAY ASSESS A CIVIL PENALTY AGAINST ANY  
33 PERSON WHO VIOLATES THIS SECTION AS FOLLOWS:

1 (I) IF THE VIOLATOR IS A CORPORATION, FIRM, CLINIC, HOSPITAL,  
2 LABORATORY, OR RESEARCH FACILITY, THE CIVIL PENALTY MAY NOT EXCEED  
3 \$1,000,000 OR THE APPLICABLE AMOUNT UNDER SUBPARAGRAPH (III) OF THIS  
4 PARAGRAPH, WHICHEVER IS GREATER;

5 (II) IF THE VIOLATOR IS AN INDIVIDUAL, THE CIVIL PENALTY MAY  
6 NOT EXCEED \$250,000 OR THE APPLICABLE AMOUNT UNDER SUBPARAGRAPH (III) OF  
7 THIS PARAGRAPH, WHICHEVER IS GREATER; OR

8 (III) IF THE VIOLATOR DERIVES PECUNIARY GAIN FROM THE  
9 TRANSACTION, THE CIVIL PENALTY MAY NOT EXCEED THREE TIMES THE GROSS  
10 PECUNIARY GAIN RESULTING FROM THE VIOLATION.

11 (C) THE CIVIL PENALTIES SHALL BE PAID TO THE GENERAL FUND.

12 (D) IN THE EVENT OF THE FAILURE OF ANY PERSON TO PAY ANY PENALTY  
13 ASSESSED UNDER THIS SECTION, A CIVIL ACTION FOR RECOVERY OF THE PENALTY  
14 MAY BE BROUGHT BY THE STATE AGAINST THE PERSON.

15 (E) THIS SECTION MAY NOT BE CONSTRUED TO GIVE A PERSON A PRIVATE  
16 RIGHT OF ACTION.

17 20-1004.

18 (A) (1) IN THIS SECTION THE FOLLOWING WORDS HAVE THE MEANINGS  
19 INDICATED.

20 (2) (I) "DONATING" MEANS GIVING WITHOUT RECEIVING VALUABLE  
21 CONSIDERATION.

22 (II) "VALUABLE CONSIDERATION" DOES NOT INCLUDE  
23 REASONABLE PAYMENTS:

24 1. ASSOCIATED WITH THE TRANSPORTATION OF THE  
25 DONOR, OR THE TRANSPORTATION, PROCESSING, PRESERVATION, OR STORAGE OF  
26 AN OOCYTE OR THE PRODUCT OF NUCLEAR TRANSPLANTATION RESEARCH; OR

27 2. INTENDED TO COMPENSATE A DONOR OF ONE OR MORE  
28 OOCYTES FOR THE MEDICAL COSTS ASSOCIATED WITH THE DONATION.

29 (3) "FERTILIZATION" MEANS THE FUSION OF AN OOCYTE CONTAINING A  
30 HAPLOID NUCLEUS WITH A SPERM CELL.

31 (B) A SOMATIC CELL NUCLEUS MAY NOT BE TRANSPLANTED INTO AN OOCYTE  
32 THAT HAS UNDERGONE OR WILL UNDERGO FERTILIZATION.

33 (C) AN UNFERTILIZED BLASTOCYST MAY NOT BE MAINTAINED INTACT FOR  
34 MORE THAN 14 DAYS AFTER ITS FIRST CELL DIVISION, NOT INCLUDING ANY TIME  
35 DURING WHICH THE UNFERTILIZED BLASTOCYST IS STORED AT TEMPERATURES  
36 BELOW ZERO DEGREES CENTIGRADE.

1 (D) (1) IN ACCORDANCE WITH PARAGRAPH (2) OF THIS SUBSECTION, AN  
2 OOCYTE MAY NOT BE USED IN NUCLEAR TRANSPLANTATION RESEARCH UNLESS THE  
3 OOCYTE WAS DONATED VOLUNTARILY BY AND WITH THE INFORMED CONSENT OF  
4 THE WOMAN DONATING THE OOCYTE.

5 (2) AN OOCYTE OR UNFERTILIZED BLASTOCYST MAY NOT BE ACQUIRED,  
6 RECEIVED, OR OTHERWISE TRANSFERRED FOR VALUABLE CONSIDERATION OTHER  
7 THAN REIMBURSEMENT FOR STORAGE OR TRANSPORTATION COSTS.

8 (E) NUCLEAR TRANSPLANTATION MAY NOT BE CONDUCTED IN A  
9 LABORATORY IN WHICH HUMAN OOCYTES ARE SUBJECT TO ASSISTED  
10 REPRODUCTIVE TECHNOLOGY TREATMENTS OR PROCEDURES.

11 (F) THE SECRETARY MAY ASSESS A CIVIL PENALTY AGAINST ANY PERSON  
12 WHO VIOLATES THIS SECTION NOT TO EXCEED \$250,000.

13 SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall take  
14 effect October 1, 2004.